

The rejections under 35 U.S.C. 102 are respectfully traversed, and reconsideration and reexamination of the application is respectfully requested for the reasons set forth herein below.

Paragraph 3 on page 2 of the Action identifies those elements of the Izumiyama reference that purportedly describe the elements as claimed. The Action relies on FIG. 3, FIG. 7, and col. 5 lines 63-68 to support the rejection under 35 USC 102. Specifically, the Office Action asserts that elements 7a, 7b of FIG. 1 of the Izumiyama reference teach the first structure as claimed, and element 6 of FIG. 1 of the Izumiyama reference teaches the second structure as claimed. It is also the Action's position that FIG. 3 and FIG. 7 illustrate a single component.

However, it is respectfully submitted that the Izumiyama reference does not teach or suggest integrating a filter and balun into a single component as claimed. Furthermore, it is respectfully submitted that FIG. 3, FIG. 7, and col. 5, lines 63-68 of the Izumiyama reference do not fairly teach or suggest the component according to the invention as claimed. Each of these figures or cited portions are discussed individually hereinbelow.

First, it is respectfully submitted that FIG. 3 and FIG. 7 do not illustrate a single component, but instead illustrate a circuit board that has many individual components, one of which is the balun of Izumiyama. FIG. 3 is described in the "Brief Description of the Drawings" as "a block diagram for illustrating a frequency converting circuit in which the balanced-to-unbalanced converters of the present invention connected to a double balanced mixer are provided." (Col. 3, line 66 to Col. 4, line 2). The frequency converting circuit includes many different components, such as mixer 2, balun 7a, 7b, IF amplifier 4 and local oscillation circuit 5. For example, the mixer 2 and the prior art

baluns 3 are shown as separate components in FIG. 4. FIG. 3 illustrates a bandpass filter 6, but does not teach or suggest integrating the filter 6 with the balun as claimed.

FIG. 7 is described in the "Brief Description of the Drawings" as "a diagram illustrating a balanced-to-unbalanced converting circuit embodying the present invention in which balanced-to-unbalanced converters are provided on separate printed circuit layers of a multi-layer substrate." (Col. 4, lines 13-16). It is respectfully noted that FIG. 7 does not illustrate or include any filter, but only shows the mixer 2 and the balun (7a, 7b). FIG. 7 and FIG. 4, which is the corresponding version of FIG. 7 with prior art baluns, illustrate a multilayer substrate (e.g., printed circuit board) with components mounted thereon. For example, these components include a mixer integrated circuit 2, conventional baluns 3, or the Izumiyama balun (7a, 7b). There is no teaching whatsoever to integrate one or more of these components into a single component.

Furthermore, it appears clear that the band pass filter 6 and the balanced-to-unbalanced converters 7a and 7b are individual components that are coupled together through terminals (e.g., terminals 2f, 2c, 2d, and 2e). In fact in a portion of the Izumiyama reference cited on page 3 of the Action, the references states in column 2, lines 13-16.

".. the IF amplifier 4, the local oscillation circuit 5, the bandpass filter and so on as illustrated in FIG. 6 are surface-mounted type components and are mounted on the first printed circuit layer 1a, similarly as the double balanced mixer 2." [emphasis added]

This above portion of Izumiyama was cited in the previous response. However, the Final Action fails to address or comment on the portion even though the portion appears to contradict the Action's position that FIG. 1, 4, and 7 illustrate a single

component. It is respectfully requested that the specific facts and/or arguments raised to rebut the various positions taken by the Action be addressed and refuted.

Even the Izumiyama reference uses the term “component” to refer to the individual amplifier 4, balun 3, filter 6, etc. of FIGs. 4 & 6. FIG. 1 and FIG. 7, which are figures that correspond to and are similar to FIG. 4, except that they show the Izumiyama balun instead of the prior art balun, fail to teach or suggest a filter integrated with a balun in a single component as claimed.

There is no teaching to integrate a filter into the conventional baluns 3. Absent any teaching, one of ordinary skill in the art would understand that filters are made from individual components and mounted to the multiplayer substrate in a fashion similar to the mixer 2 and conventional baluns 3, especially when an explicit statement is made in col. 2, lines 12-16.

For a prior art reference to anticipate a claim, the reference must disclose each and every element of the claim with sufficient clarity to prove its existence in the prior art. See In re Spada, 911 F.2d 705, 708, 15 USPQ 2d 1655, 1657 (Fed. Cir. 1990) (“[T]he [prior art] reference must describe the applicant’s claimed invention sufficiently to have placed a person of ordinary skill in the field of the invention in possession of it.” (citations omitted)). Although this disclosure requirement presupposes the knowledge of one skilled in the art of the claimed invention, that presumed knowledge does not grant a license to read into the prior art reference teachings that are not there. Motorola, Inc. v. Interdigital Tech. Corp., 43 USPQ 2d 1481, 1490 (Fed. Cir. 1997) [emphasis added.]

It is respectfully requested that specific claim limitations are not read into the Izumiyama reference when those teachings do not exist in the Izumiyama reference. It

is respectfully submitted that Izumiyama fails to teach or suggest a balun integrated with a filter in a single component as claimed.

In view of the foregoing, it is respectfully submitted that claims 1-2 and 13 are not anticipated by the Izumiyama reference. Consequently, it is respectfully requested that the rejections under 35 USC 102 be withdrawn.

REJECTION OF CLAIMS 4-12 AND 14-21 UNDER 35 U.S.C. 103

Claims 4-12 and 14-21 are rejected under 35 U.S.C. 103 for the reasons set forth beginning on page 3 and continuing through the middle of page 4 of the Action. Specifically, claims 4-12 and 14-21 are rejected under 35 U.S.C. 103 as being unpatentable over Izumiyama (US Pat. No. 5,705,960).

The rejections under 35 U.S.C. 103 are respectfully traversed, and reconsideration and reexamination of the application is respectfully requested for the reasons set forth hereinbelow.

Regarding claims 4-8, 12, 17, the Action relies on col. 2, lines 3-16 for rendering these claims obvious. Col. 2, lines 3-16 describes a single ended bandpass filter 6. However, as described previously, there is no teaching or suggestion that the filter 6 is integrated into a single component with the balun. Furthermore, it is respectfully submitted that col. 2, lines 3-16 fails to render obvious the specific limitations (e.g., type of filter, filter with single ended input and single ended output, and filter with differential input and differential output) recited by claims 4-8, 12.

The Federal Circuit has ruled, "Regardless of whether the prima facie case would have been characterized as strong or weak, the examiner must consider all of the evidence anew. The process is as stated in In re Rinehart, 531 F.2d 1048, 1052, 189

USPQ 143, 147 (C.C.P.A. 1976): When prima facie obviousness is established and evidence is submitted in rebuttal, the decision-maker must start over. . . . An earlier decision should not, as it was here, be considered as set in concrete, and applicant's rebuttal evidence then be evaluated only on its knockdown ability.” In re Piasecki, 223 USPQ 785, 788 (Fed. Cir. 1984). [emphasis added.]

It is respectfully requested that meaning be ascribed to the specific limitations recited by the dependent claims and that these specific limitations not be ignored.

Regarding claims 9-11 16, 20, the Action relies on FIG. 7 and col. 2, lines 3-16 for rendering these claims obvious. It is respectfully submitted that FIG. 7 and col. 2, lines 3-16 fail to render obvious the specific limitations (e.g., specific implementations of the balun, impedance transformation elements, and types of filters (SAW, FBARs)) recited by claims 9-11 16, 20. As described previously, FIG. 7 fails to even show any type of filter. Consequently, FIG. 7 fails to teach or suggest a balun integrated with the filter as claimed.

Regarding claims 14, 15, 18, 19, and 21, the Action relies on FIG. 7, col. 2, lines 13-16, col. 4, lines 52- 58, and col. 5, lines 66-67 for rendering these claims obvious. It is respectfully submitted that FIG. 7, col. 2, lines 13-16, col. 4, lines 52- 58, and col. 5, lines 66-67 fail to render obvious the specific limitations recited by claims 14, 15, 18, 19, and 21. For example, as described previously, FIG. 7 fails to even show any type of filter. Consequently, FIG. 7 fails to teach or suggest a balun integrated with the filter as claimed. Furthermore, FIG. 7 fails to teach or suggest the 1) specific inputs and outputs of the filter and 2) the specific connections between the inputs and outputs of the filter and the inputs and outputs of the balun.

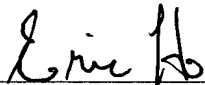
Col. 2, lines 13-16 appears to teach that other components are mounted on the first printed circuit layer 1a. Col. 4, lines 52-56 teaches that the stripline (copper foil pattern) balun of Izumiyama can be mounted on the outermost layer. Col. 5, lines 66 and 67 teach that the stripline (copper foil pattern) balun of Izumiyama can be mounted on different inner layers for the benefit noted in col. 6, lines 1-5. It does not appear that the portions cited by the Action teach or suggest the specific limitations recited by claims 14, 15, 18, 19, and 21.

The Patent Office has the initial duty of supplying the factual basis for its rejection. It may not, because it may doubt that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis. In re Warner, 154 USPQ 173, 178 (C.C.P.A. 1967), cert. denied, 389 U.S. 1057 (1968). [emphasis added.]

Based on the foregoing, it appears that the Action cites portions of the Izumiyama in a piece-meal fashion using the teachings of the specification of the present application as a template. Often portions of the prior art are interpreted in a strained manner or in some cases are even interpreted in an inaccurate manner. It is respectfully requested that speculation and hindsight reconstruction not be utilized to render obvious the invention as claimed. Consequently, it is respectfully requested that the rejections under 35 U.S.C. 103 be withdrawn.

In view of the foregoing, it is respectfully submitted that all pending claims of the present invention are now in condition for allowance. Reexamination and reconsideration of the pending claims are requested, and allowance at an early date solicited. The Examiner is invited to telephone the undersigned if the Examiner has any suggestions, thoughts or comments, which might expedite the prosecution of this case.

Respectfully submitted,



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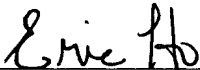
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Dated: January 21, 2003

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231 on the date below.



Eric Ho (RN 39,711)

January 21, 2003

(Date)